

ART 34 AMDT

We claim:

1. A process for selectively hydrogenating citronellal to
5 citronellol in which a liquid phase, in which the citronellal
is dissolved and particles of a catalyst are suspended which
is capable of preferentially hydrogenating carbon-oxygen
double bonds over carbon-carbon double bonds, is conducted
10 through a device which inhibits the transport of the catalyst
particles in the presence of a hydrogen-containing gas, the
liquid phase further comprises ammonia, a primary, secondary
and/or tertiary amine as well as an inert diluent, and
wherein the concentration of citronellal in the liquid phase
is from 50 to 90% by weight.
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2. A process as claimed in claim 1, wherein the active component
of the catalyst comprises ruthenium.
3. A process as claimed in claim 1 or 2, wherein the device
20 inhibiting the transport of the catalyst particles has
orifices or channels whose hydraulic diameter is from 2 to
2000 times the average diameter of the catalyst particles.
4. A process as claimed in any of the preceding claims, wherein
25 catalyst particles having an average diameter of from 0.0001
to 2 mm are used.
5. A process as claimed in any of the preceding claims, wherein
the device inhibiting the transport of the catalyst particles
30 is a dumped packing, a knit, an open-celled foam structure or
a structured packing element.
6. A process as claimed in any of the preceding claims, wherein
the liquid phase and the hydrogen-containing gas are
35 conducted through the device inhibiting the transport of the
catalyst particles at a superficial velocity of more than 100
m³/m²h.
7. A process as claimed in any of the preceding claims, wherein
40 the surfaces of the device facing toward the liquid phase
have a roughness in the region of from 0.1 to 10 times the
average diameter of the catalyst particles.
8. A process as claimed in any of the preceding claims, wherein
45 the diluent is a C₁-C₆-alkanol.

9. A process as claimed in claim 8, wherein the diluent is a C₁-C₆-alkanol.
10. A process as claimed in any of the preceding claims, wherein
5 the liquid phase further comprises ammonia, a primary, secondary and/or tertiary amine.
11. A process as claimed in any of claims 8 to 10, wherein the
10 concentration of citronellal in the liquid phase is from 50 to 90% by weight.

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